

# Granzyme B Monoclonal Antibody (NGZB), eFluor™ 660, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), eFluor™ 660, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	NGZB
Conjugate	eFluor™ 660
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_11219679

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Flow Cytometry (Flow)	0.125 µg/test	23 Publications

## Product Specific Information

**Description:** This NGZB monoclonal antibody reacts with mouse Granzyme B, which is a member of the granzyme serine protease family. Granzyme B is found in the granules of cytotoxic T cells and NK cells. Granzyme B has also been described as CGL1 (cathepsin G-like-1), a serine protease expressed only in cytotoxic T-lymphocytes after cell activation, and CTLA-1 (cytotoxic T lymphocyte-associated serine esterase 1) based on identification of mRNA in various cytotoxic T cells, but not observed in non-cytotoxic lymphoid cells. Granzyme B is crucial for the rapid induction of target cell death by apoptosis, induced by interaction with cytotoxic T cells. The receptor involved has been identified as mannose 6-phosphate receptor. This receptor functions as a death receptor for Granzyme B during cytotoxic T cell-induced apoptosis. This NGZB monoclonal antibody does not crossreact to human Granzyme B nor is staining blocked with GB11, suggesting it recognizes a different epitope.

**Applications Reported:** This NGZB antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

**Applications Tested:** This NGZB antibody has been tested by intracellular staining and flow cytometric analysis of stimulated mouse splenocytes using the Intracellular Fixation & Permeabilization Buffer Set (cat. 88-8824) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully

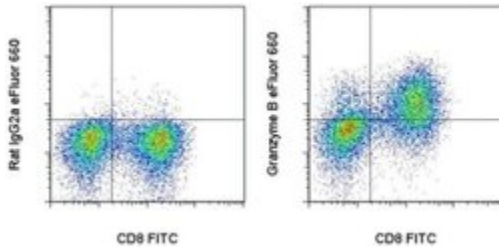
titrated for optimal performance in the assay of interest.

eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 633-647 nm; Emission: 668 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

## Product Images For Granzyme B Monoclonal Antibody (NGZB), eFluor™ 660, eBioscience™



### Granzyme B Antibody (50-8898-82) in Flow

C57Bl/6 splenocytes were stimulated for 4 days with Anti-Mouse CD3e and Anti-Mouse CD28 Functional Grade Purified (Product # 16-0031-82 & Product # 16-0281-82) and Brefeldin A was added for the last 5 hours of culture. Cells were surface stained with Anti-Mouse CD8a FITC (Product # 11-0081-82) followed by intracellular staining with 0.06 µg of Rat IgG2a K Isotype Control eFluor® 660 (Product # 50-4321-82) (left) or 0.06 µg of Anti-Mouse Granzyme B eFluor® 660 (right) using the Intracellular Fixation & Permeabilization Buffer Set (plus Brefeldin A) (Product # 88-8823-88) and protocol. Total viable cells were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 24 References

### Immunohistochemistry (1)

Journal of virology

#### Caribbean and La Réunion Chikungunya Virus Isolates Differ in Their Capacity To Induce Proinflammatory Th1 and NK Cell Responses and Acute Joint Pathology.

"Published figure using Granzyme B monoclonal antibody (Product # 50-8898-82) in Flow Cytometry"

Authors: Teo TH, Her Z, Tan JJ, Lum FM, Lee WW, Chan YH, Ong RY, Kam YW, Leparac-Goffart I, Gallian P, Rénia L, de Lamballerie X, Ng LF

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2015

### Flow Cytometry (23)

International journal of nanomedicine

#### Extracellular Vesicles from *Akkermansia muciniphila* Elicit Antitumor Immunity Against Prostate Cancer via Modulation of CD8<sup>+</sup> T Cells and Macrophages.

"Published figure using Granzyme B monoclonal antibody (Product # 50-8898-82) in Flow Cytometry"

Authors: Luo ZW, Xia K, Liu YW, Liu JH, Rao SS, Hu XK, Chen CY, Xu R, Wang ZX, Xie H

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

Cell reports

#### Blockade of 6-phosphogluconate dehydrogenase generates CD8<sup>+</sup> effector T cells with enhanced anti-tumor function.

"Published figure using Granzyme B monoclonal antibody (Product # 50-8898-82) in Flow Cytometry"

Authors: Daneshmandi S, Cassel T, Lin P, Higashi RM, Wulf GM, Boussiotis VA, Fan TW, Seth P

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

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